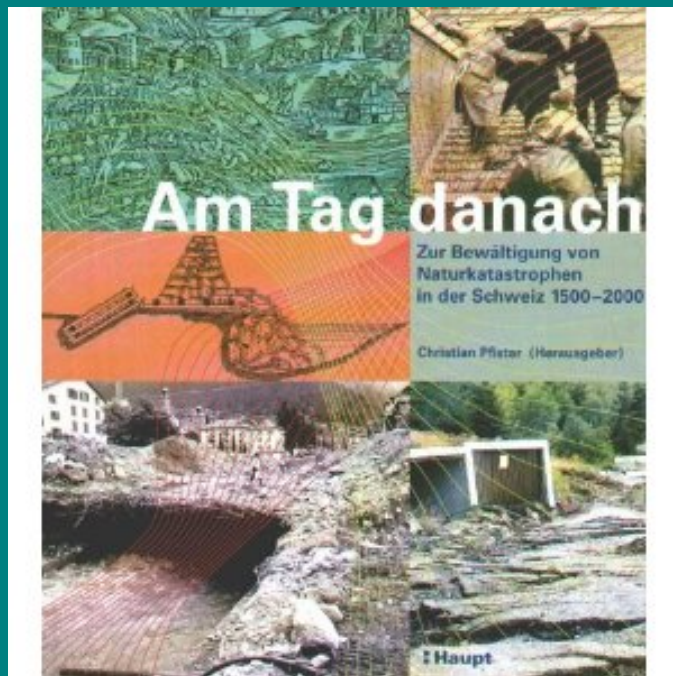


From the Lisbon earthquake to hurricane Katrina:  
catastrophes, science & popular culture

Dr. phil. Werner Krauss  
Ruhr-University of Bochum  
Center for Mediterranean Studies

In the abstract for this panel, the natural science of storm surges is contrasted with people's religious perceptions. For science, storm surges are an amassment of water in coastal regions; for religion, they are punishment for our sins. For some scientists, moral or religious interpretation is easily seen as backward; some day religion will be overcome by rationality, by science. In my presentation I will show that contrasting science and religion in this teleological way can be misleading; instead, I will argue that science and religion are both an integral part of the human experience of catastrophes and the way we deal with them.

# From the Lisbon earthquake to hurricane Katrina: catastrophes, science & popular culture

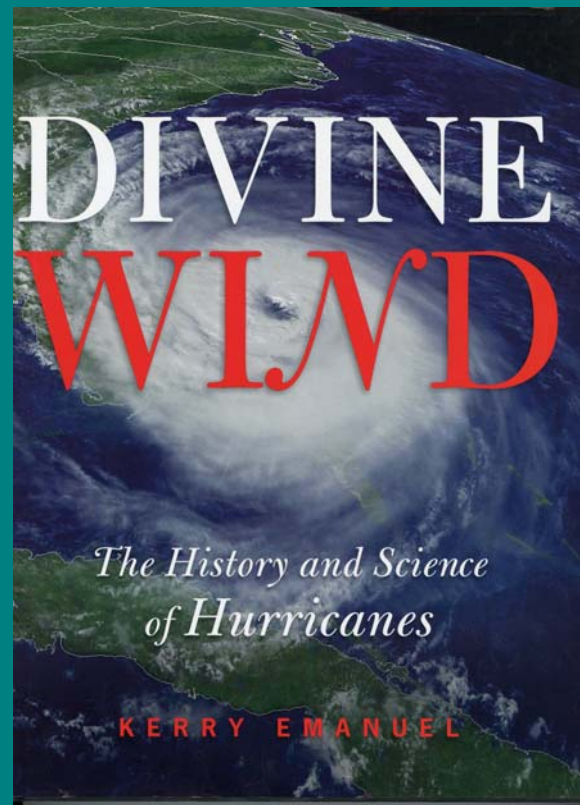


World views /  
schemes of interpretation

- scientific
- religious
- environmental
- magic-animistic
- ...

According to Christian Pfister, catastrophes are always interpreted along value and belief systems prevalent in the affected society. In his book “Am Tag danach”, he lists science as a worldview among others such as religion, ecology, or magic-animistic thinking. Furthermore, Pfister demonstrates the link between natural catastrophes and nation building. In doing so, he easily transgresses the borders between the natural and cultural sciences towards an integrated science of catastrophes.

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Kerry Emanuel takes up this line of thought in his book about hurricanes. Its title “Divine winds” goes back to the thirteenth century, when the Mongolians under Kublai Khan wanted to conquer Japan with the help of the Korean armada. The two armadas with up to 30.000 men were ready to attack. But Japan was saved by the ‘divine winds’, called kamikaze, sent by their gods to defend their land from invaders. Tens of thousands of the attackers were killed by the storm and the samurai. Of course, we also could call this typhoon ‘serendipity’ or chance, but as we now, in the context of nation building, chance easily turns into destiny. Thus, the term ‘divine wind’ integrates both a specific meteorological condition, and its meaning for a society in a certain time in history.

## From the Lisbon earthquake to hurricane Katrina: catastrophes, science & popular culture

- “It is my ambition to portray the hurricane as it is seen from the perspectives of history, art and science, so as to form an integrated appreciation of the phenomenon.” (Emanuel 2005, IX)

In his introduction, Emanuel writes: “It is my ambition to portray the hurricane as it is seen from the perspectives of history, art and science, so as to form an integrated appreciation of the phenomenon.” His main focus is on integration of these diverse aspects that are normally discussed in separate disciplines. But both Pfister and Emmanuel argue convincingly that natural catastrophes are truly interdisciplinary, and they demonstrate in many examples, that natural catastrophes are never pure; they always happen inside of a meaningful world.



## Outline

- Lisbon 1755 :
  - “Das Erdbeben von Chile” by Heinrich von Kleist
- Hurricane Katrina 2005:
  - “Zeitoun” by Dave Eggers
- Pakistan 2010
- Elbe River 2005
- Conclusion

It is common sense that catastrophes are only of interest when people are concerned.

As an anthropologist I agree with Emanuel that art and popular culture are indeed a great source to learn about how people experience those calamities. In the first part of my presentation, I want to compare two dramatic stories with a time distance of 250 years:

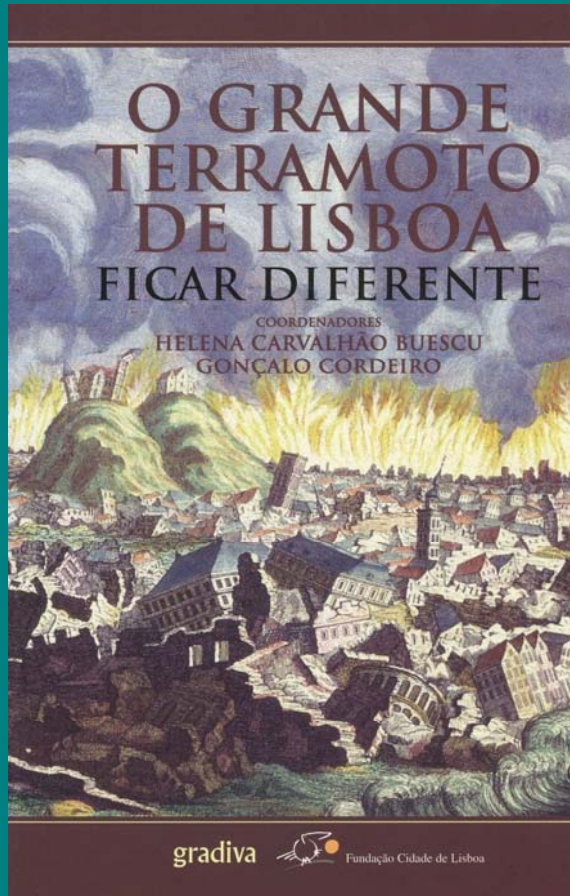
Kleist's "Earthquake of Chile", which was a reaction to the Earthquake of Lisbon, and

Egger's "Zeitoun", a survival story from hurricane Katrina. Next, I want to discuss some

aspects of floods in Pakistan and in Germany. My goal is to show that in order to understand

storm surges we have to analyze the links between categories such as religion, nation, science, nature and culture instead of separating them.

# The earthquake of Lisbon 1755



The Lisbon earthquake of 1755 serves as a kind of template for all subsequent catastrophes in the modern world. An earthquake followed by a tsunami destroyed great parts of the city of Lisbon and killed tens of thousands of people. It was the first almost global media event, the news spread around the world. The event raised scientific curiosity and marked the beginning of seismography and other scientific disciplines; at the same time, the church interpreted the earthquake as a punishment of God. And finally, the earthquake led to lively discussions among enlightened intellectuals: how could a merciful God allow a catastrophe like this?

# “Das Erdbeben von Chile” Heinrich von Kleist



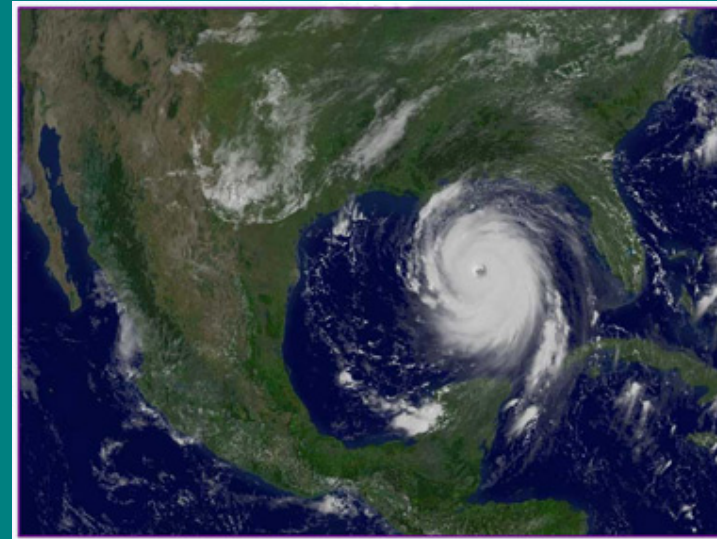
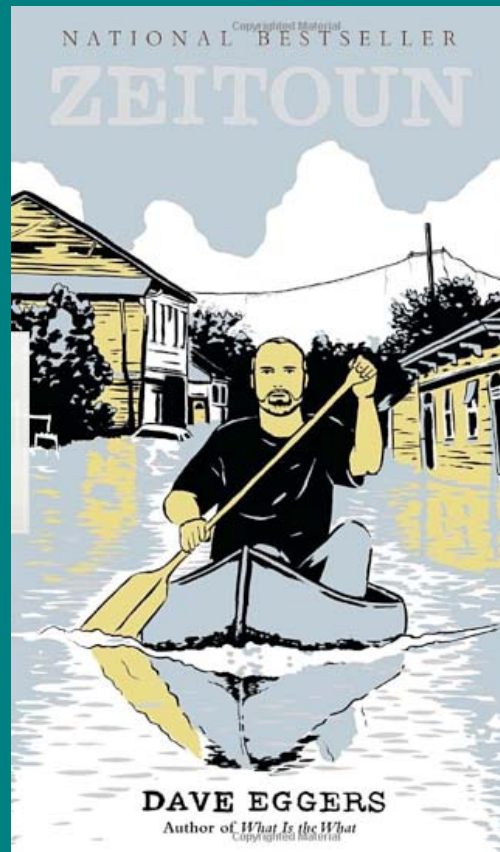
One of the most moving interpretations of the Lisbon Earthquake is Heinrich von Kleist's novella 'The Earthquake in Chile'. This story can be read as an argument for enlightenment against the dark ages of religion.

In this story, a boy loves a girl. Her father hides her in a monastery, but the boy finds her and soon she is pregnant. The two illegitimate lovers are thrown into prison. At the day of the execution of the girl, an earthquake destroys the city of Santiago and thus saves their lives. They find each other in a valley where their baby is born. On a Sunday, they hear the church bells ring and go with their newborn baby to a church thanking the Lord. But the priest points at the young family and asserts that their sinfulness had provoked the rage of God, and the churchgoers turn into a lynch mob. Only the baby survives in the arms of an enlightened citizen. That's how the story ends.

This citizen stands in lonely isolation for a future society in which reason and rationality will prevail. This, at least, is what Kleist seems to have been hoping for. But did finally rational behavior succeed in the long run?



# Hurricane Katrina 2005



In 2005, we could realize during hurricane Katrina how rationality and reason still have a really hard time. After Katrina, the American novelist Dave Eggers documented the true story of Zeitoun, a 47-year-old Syrian immigrant and Muslim businessman, who lives with his wife and four children in New Orleans as a contractor.

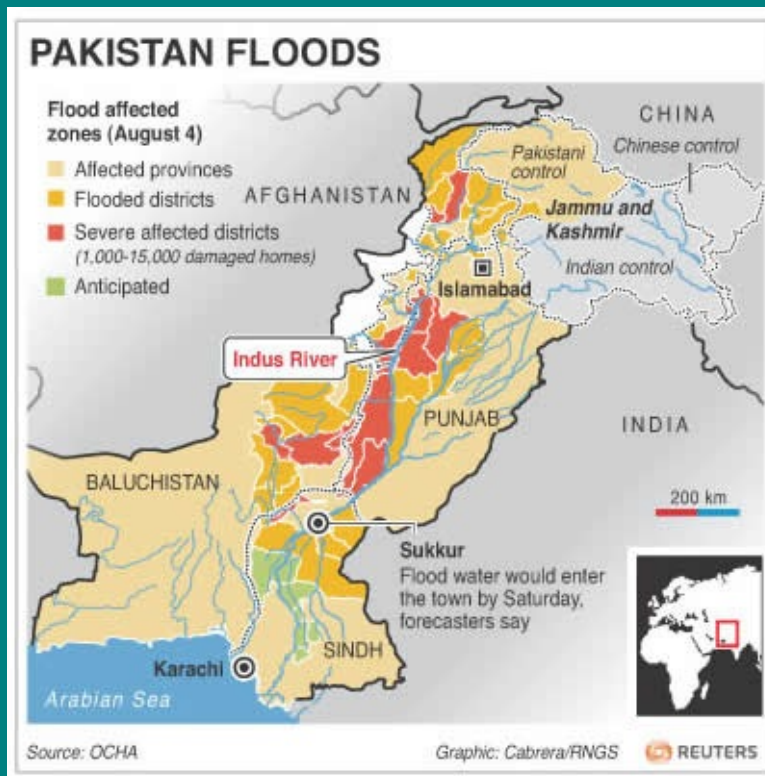
When Katrina comes, Zeitoun's wife and children evacuate, while he chooses to stay to take care of their many properties. Owner of a canoe, Zeitoun paddles around and helps elderly people and feeds dogs, which are trapped in their homes. In one of the houses he finds a phone that still works, and every day he calls his wife. After one of his daily calls, Zeitoun goes to the door to see who is knocking. It is the police, coming in a boat to put him into jail.



Kathy does not hear from her husband for seven weeks. Zeitoun gets caught in the world of anti-terrorist detention. Because of his Arab looks, they suspect him to be a member of Al Qaeda. They keep him in a cage in a Guantanamo-like jail at the railway station of New Orleans, erected for looters, prisoners and terrorists. He suffers tremendously, losing 20 pounds, and having his daily requests to call his wife denied. It takes seven weeks until his family get him back.

Does Zeitoun really live in an enlightened world as imagined by Kleist? Hardly so. The natural disaster, the vulnerability of New Orleans and the war on terror framed their space of existence. But while this novel narrates an individual case, we are currently confronted with the war on terror as an interpretative system on large scale, too.

# Pakistan flood 2010



sueddeutsche.de Politik

Pakistan: USA stoßen Hilfe auf

## Mit Helikoptern gegen die Flut - und gegen die Taliban

12.08.2010, 07:57

Die Wut auf die pakistanische Regierung wächst, die Taliban gewinnen Sympathien bei Flutopfern. Das missfällt den USA: Mit mehr Geld und Gerät soll der Einfluss der Islamisten eingedämmt werden.

Erst Geld, jetzt schweres Gerät: Die USA kommen den Flutopfern in Pakistan verstärkt zur Hilfe. Verteidigungsminister Robert Gates sagte am Mittwoch, ein Hubschrauberträger sei bereits in den Gewässern vor der größten pakistanischen Stadt Karatschi angekommen.



US-Hilfe bei der Rettung pakistanischer Flüchtlinge: Statt mit sechs wollen die Amerikaner nun mit 19 Helikoptern Menschen retten - und damit den Taliban schaden. (© AFP)

Das Trägerschiff *USS Peleliu* mit 19 Hubschraubern an Bord sollte die Hilfseinsätze der Regierung in Islamabad und des pakistanischen Militärs unterstützen. Die sechs US-Helikopter, die bislang Hilfseinsätze flogen, würden zurück ins Nachbarland Afghanistan beordert. Mit ihnen wurden nach Angaben des Pentagon bisher etwa 3000 Menschen gerettet und fast 150 Tonnen Hilfsgüter verteilt.

Die USA kündigten außerdem weitere finanzielle Unterstützung an. Zusätzlich zu den bereits zugesagten 55 Millionen Dollar für die pakistanischen Behörden wollen sie 16,2 Millionen Dollar Soforthilfe für das Flüchtlingskommissariat der Vereinten Nationen und das

The recent storm surge in Pakistan offers interesting parallels. 20 million people were affected by this storm surge. Newspaper editorials were eager to explain the double nature of help: we have to fight with helicopters both the flood and the Taliban. In a destabilized country, the US and the EU should intervene into the power vacuum. This is even more important, as pundits from both sides of the Atlantic argued, because the Taliban already started to help people. Of course, it was suggested, the Taliban did only so in order to spread their evil message and to gain control over the people. In a German talk show, nobody protested when it was argued that we should help because we are Christians - even though the victims are Muslims, as the subtext goes. The argument that we should help simply because people need help hardly gained ground. Each intervention in this space of calamity turns into a political one. There is no neutral space, neither for humanitarian, technological or scientific intervention. It is still open whether this flood will contribute to stabilizing the nation or to further disintegration.

But the past, Pakistan and the United States are foreign countries to us. In the last part, I want to illustrate how extreme meteorological events, science, religion and the process of nation building are linked in Germany.

## Elbe River Flood 2002



Sächsische Zeitung:

“Now the flood is here.

This deluge reminds us of our sins. Who is responsible, why did this happen? We even don't need scientific evidence anymore: global warming is the consequence of our life style.” (transl. WK)

In August of 2002, the Elbe River left its bed after heavy rainfalls and flooded huge areas in Eastern Germany. In the course of almost two weeks, the media reported every day on the course of the flood, the individual dramas and the politics involved. From early on, the flood was put into a context, which easily blurred the borders between science and religion. A commentary in the Sächsische Zeitung summed it up: „Now the flood is here. This ‚deluge‘ (Sintflut) reminds us of our sins. Who is responsible, why did this happen? We even don't need scientific evidence any more: global warming is the consequence of our life style.“



# Elbe River 2005: Global warming & reunification



The commentator in fact was backed up by science. From day one of the catastrophe, climate scientists appeared on German TV talk shows. More or less directly they confirmed that this flood might be the first sign of anthropogenic climate change, a warning sign of what is to be expected in the future. Even though scientific evidence was weak or nonexistent, some climate scientists turned into prophets. Thus, Elbe flood made it on the cover of a book on climate change. But the flood was meaningful in another, more practical sense, too.

There was an enormous wave of solidarity, and building dams out of sand bags become a national effort. In the media, the Elbe River flood was interpreted as an act of practical reunification in a culturally still divided nation. Thus, in the sense of Pfister, the Elbe River flood both contributed to nation building and was subject to an interpretation along environmental values, which were closely linked to religious ones. A flood can turn scientists into prophets and reunite divided nations.

# From the Lisbon earthquake to hurricane Katrina: catastrophes, science and popular culture

The fragility of the world (Heinrich von Kleist)





Today, climate change is one of the dominant patterns of interpretation for storm surges. Unfortunately, the war on terror is another one. In these media discourses, dualistic narratives prevail: the dark ages and enlightenment, science and religion, Christianity and Islam, the developing and the developed world, or nature and culture. As my examples have shown, in practice these entities are linked in complex ways and ever-new combinations. In order to understand storm surges we have to trace these links and connections beyond familiar oppositions. Only then we have a chance to understand the complexities caused through disaster. And from Kleist we can learn, that even then we still will be confronted with the fragility of the world.